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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/506,453

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Masakatsu Endo

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25920

7590

06/15/2009

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EXAMINER

LE, TUAN H

ART UNIT

PAPER NUMBER

2622

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/506,453	Applicant(s) ENDO ET AL.	
	Examiner TUAN H. LE	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 36-41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura (US 6,806,978 to Tamura et al) in view of Hannah (US 5,784,581).

Regarding **claim 36**, Tamura discloses a digital camera (110), connected to a USB interface (116) in a connection mode (Tamura, fig. 8), the digital camera comprising:

a controller (camera cpu 120), operable to change the connection mode in accordance with a condition of the digital camera (Tamura, fig. 8, column 31 lines 17 and 63, wherein camera 110 can change connection mode between a printer or a personal computer),

wherein the connection mode includes:

a first mode (camera connected to the printer) in which the digital camera is in communication with a printer with an interrupt channel (Tamura, Fig. 8,

Art Unit: 2622

column 31 lines 12-15, wherein USB connection is transmitted by using interrupt signal. Also, the camera functions as a slave device).

However, Tamura does not disclose

a second mode in which the digital camera is in communication with a computer without the interrupt channel.

On the other hand, Hannah discloses

a second mode (camera connected to a personal computer which is embedded with an USB host controller) in which the digital camera is in communication with a computer without the interrupt channel (Hannah, Fig. 3, Fig. 5, column 4 lines 1-10, wherein the camera is automatically identified by the usb host controller. Also, the camera functions as slave device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the second mode as described by Hannah into the printing system as described by Tamura so that the digital camera is in communication with a computer without the interrupt channel because such implementation results in higher image processing speed for image data captured by the camera.

Regarding **claim 37**, Tamura and Hannah disclose the aforementioned limitations of the parent claim. Additionally, Tamura discloses

the condition includes a state of the digital camera in which the digital camera is powered on and a state of the digital camera in which the digital camera is powered off (Tamura, column 31 lines 9-11, wherein the camera has a powered-on state and a powered-off state).

Regarding **claim 38**, Tamura and Hannah disclose the aforementioned limitations of the parent claim. Additionally, Tamura discloses

when a communication connection between the digital camera and the printer is established, the digital camera sends a device descriptor including information on the interrupt channel to the printer, and then the printer sends a response to the device descriptor to the digital camera (Tamura, Fig. 8, column 31 lines 23-46, wherein upon receiving "device descriptor", the printer sends "configuration descriptor" to the camera).

Regarding **claim 39**, Tamura discloses a system comprising:

a computer (Tamura, column 31 line 61);

a printer (Tamura, fig. 8); and

a digital camera (110), connected to a USB interface (116) in a connection mode (Tamura, fig. 8), and comprising:

a controller (camera cpu 120), operable to change the connection mode in accordance with a condition of the digital camera (Tamura, fig. 8, column 31 lines 17 and 63, wherein camera 110 can change connection mode between a printer or a personal computer),

wherein the connection mode includes:

a first mode (camera connected to the printer) in which the digital camera is in communication with the printer with an interrupt channel (Tamura, Fig. 8, column 31 lines 12-15, wherein USB connection is transmitted by using interrupt signal. Also, the camera functions as a slave device).

However, Tamura does not disclose

a second mode in which the digital camera is in communication with the computer without the interrupt channel.

On the other hand, Hannah discloses

a second mode (camera connected to a personal computer which is embedded with an USB host controller) in which the digital camera is in communication with the computer without the interrupt channel (Hannah, Fig. 3, Fig. 5, column 4 lines 1-10, wherein the camera is automatically identified by the usb host controller. Also, the camera functions as slave device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the second mode as described by Hannah into the printing system as described by Tamura so that the digital camera is in communication with the computer without the interrupt channel because such implementation results in higher image processing speed for image data captured by the camera.

Regarding **claim 40**, Tamura and Hannah disclose the aforementioned limitations of the parent claim. Additionally, Tamura discloses

the condition includes a state of the digital camera in which the digital camera is powered on and a state of the digital camera in which the digital camera is powered off (Tamura, column 31 lines 9-11, wherein the camera has a powered-on state and a powered-off state).

Regarding **claim 41**, Tamura and Hannah disclose the aforementioned limitations of the parent claim. Additionally, Tamura discloses

when a communication connection between the digital camera and the printer is established, the digital camera sends a device descriptor including information on the interrupt channel to the printer, and then the printer sends a response to the device descriptor to the digital camera (Tamura, Fig. 8, column 31 lines 23-46, wherein upon receiving "device descriptor", the printer sends "configuration descriptor" to the camera).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN H. LE whose telephone number is

Art Unit: 2622

(571)270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan H Le/
Examiner, Art Unit 2622

/Jason Chan/
Supervisory Patent Examiner, Art Unit 2622